AIR TACTICAL AND AIRTANKER OPERATIONS 8364

(No. 4 January 2003)

GENERAL 8364.1

(No. 4 January 2003)

Pilots of tactical fixed wing aircraft shall comply with all applicable regulations and use only approved procedures when operating CDF aircraft. Appropriate flight manuals, checklists, and other directives from CDF Aviation Management will be used.

DISPATCHING 8364.2

(No. 4 January 2003)

Aircraft shall be staffed, serviced, and available for immediate dispatch during designated duty periods. Pilots are expected to respond, without delay, to an incident (fire) dispatch. Pilots must give immediate notice to appropriate authority if they cannot or will not immediately respond. The requirement for an immediate response does not, however, give license to cut corners, skip checklists and other procedures, and does not give priority over other air traffic on the airport or in the air. Regardless of the urgency, pilots are to operate aircraft deliberately and safely.

FLIGHT AUTHORIZATION 8364.2.1

(No. 4 January 2003)

An aircraft may NOT begin a flight without authorization from the fire agency to which the aircraft is assigned. Authorization is received in the form of a Flight Order which contains an Order number and/or Incident number, aircraft number, destination, and further instructions pertinent to that mission.

FIRE DISPATCH 8364.2.2

(No. 4 January 2003)

Flight authorization for an incident (fire) dispatch will normally come from the controlling Emergency Command Center (ECC). Pilot will receive the pertinent information for that flight from a State or other agency employee at the controlling Air Attack Base.

NON-EMERGENCY FLIGHTS 8364.2.3

(No. 4 January 2003)

Authorization for non-emergency flights, such as training, proficiency, or maintenance will come from the following sources, depending upon the nature and purpose of the mission:

- Local ECC
- Region ECC
- HQ Command Center (Sacramento)
- Aviation Management Unit (Sacramento)

AIRCRAFT FUEL PURCHASING 8364.3

(No. 4 January 2003)

CDF will provide all aircraft fuel either directly or via the issuance of oil company credit cards.

Use and limitations of CDF provided fuel credit cards:

- CDF will issue a credit card to each aircraft.
- Pilot will be responsible for the security and proper use of the credit card.
- Credit card will normally be used for purchase of FUEL ONLY.
- CDF may occasionally authorize use of the credit card for items other than fuel. pilots will obtain approval from CDF AMU for these purchases on a case-by-case basis, prior to making the purchase.
- Pilot will insure that the "N" number, Tail number (T70, A120, etc) and Incident Order/Request number is recorded on the credit card receipt each time the aircraft is fueled.
- Pilot will deliver ALL credit card receipts to the designated CDF representative at the aircraft HOME BASE.

FLIGHT FOLLOWING 8364.4

(No. 4 January 2003)

Pilots of fixed-wing tactical aircraft will obtain flight following service from an appropriate ground facility on all flights. All flights will be monitored by State through an appropriate command center for resource-tracking purposes. Some flights will additionally require ATC flight following for reasons of safety and FAR compliance.

LOCAL ASSIGNMENT 8364.4.1

(No. 4 January 2003)

In the case where aircraft are dispatched within their initial-attack area, and no FAA requirement exists for ATC flight following, CDF will perform flight following service. The pilot is required to monitor the assigned tactical frequency and comply with all instructions. The pilot will also continuously monitor Guard frequency 168.625 on a tactical FM radio.

OUT-OF-AREA ASSIGNMENT 8364.4.2

(No. 4 January 2003)

In the case where aircraft are dispatched outside their local area, the same criteria applies as for a local fire mission, AND, pilots will flight follow with ATC if the route crosses victor airways or other areas of concentrated air traffic.

POINT-TO-POINT (NON-EMERGENCY) MISSION 8364.4.3

(No. 4 January 2003)

In the case of a flight where there is no emergency order or immediate response, the pilot will:

- Flight follow with ATC when operating in an FAA radar environment. In some cases, the flight may originate in an FAA radar environment and later pass out of that environment. At that time, the pilot will contact the nearest ECC and initiate the CDF flight following procedures.

- Ensure that a written flight plan is sent via FAX to the appropriate command center. The correct form can be obtained at any CDF aviation facility. Command center will issue an Order and Request Number after receiving the information.

- Contact appropriate departure ECC on local net and advise of destination, ETA, and next intended check-in ECC.

- Make radio contact with a check-in ECC every 30 minutes for fixed wing aircraft and every 15 minutes for rotary wing aircraft. Pilot will advise the check-in ECC of the aircraft number, present location, heading, destination, the next intended check-in ECC, and ETA.

- Upon arrival at destination, notify the Destination ECC via radio within 10 minutes of touchdown, or via telephone within 10 minutes after landing. I some cases required communications with FAA may preclude contact prior to touchdown.

Use the following phone and fax numbers to report flight plan information:

North Ops (Redding)	530-224-2466
	FAX 530-226-2742
South Ops (Riverside)	909-782-4169
	FAX 909-782-4900
Sacramento	916-653-8360
	FAX 916-653-8961

PASSENGER RESTRICTIONS 8364.5

(No. 4 January 2003)

Passengers, in most cases, are NOT permitted in CDF fire-fighting aircraft.

AIR TACTICAL (OV-10) 8364.5.1

(No. 4 January 2003)

No passengers authorized.

The following crewmembers are approved to occupy the observer's seat:

Air Tactical FIRE mission

- ATGS (Air Tactical Group Supervisor).
- Others case-by-case, as approved by the CDF Chief of Aviation Management

Air Tactical NON-FIRE mission

Same as for Fire mission PLUS:

- Air Tac & Airtanker pilots working under the same contract
- CDF Forestry Fire Pilots
- CDF Air Operations Officers
- Maintenance technicians working under the same contract as the PIC
- Others case-by-case, as approved by the CDF Chief of Aviation Management.

AIRTANKER (S2A /S2T) 8364.5.2

(No. 4 January 2003)

NO passengers authorized

The following crewmembers are approved to fly with the PIC in an airtanker.

Airtanker FIRE mission:

- Airtanker Trainee Pilot (designated by AMU)
- Airtanker Initial Attack Candidate (designated by AMU)
- Airtanker Co-Pilot. (designated by AMU)
- Designated CDF Pilot Inspector.
- Air Tac & Airtanker pilots working under the same contract.
- Others case-by-case, as approved by the Chief of Aviation Management

Airtanker NON-FIRE mission:

Same as for fire mission PLUS:

- CDF persons designated as ATGS or Airtanker Coordinator.
- CDF Forestry Fire Pilots.
- Maintenance technicians working under the same contract as the PIC.
- Others case-by-case, as approved by the Chief of Aviation Management

(For passenger restrictions on CDF helicopters, see Section 8314.3)

AIRPLANE OPERATIONS ON FIRE MISSIONS 8364.6

(No. 4 January 2003)

Air tactical and airtanker aircraft shall proceed to an incident at an appropriate power setting and airspeed. Minimum en route altitude for the Air Tac is 2,000 feet AGL, for the airtanker 1,000 feet AGL. Pilots shall monitor appropriate frequency(s) approaching the incident.

MINIMUM ALTITUDES (EXCEPT DURING TAKEOFF OR LANDING) 8364.6.1

(No. 4 January 2003)

	EN ROUTE	AT INCIDENT
Air Tactical	2000 feet AGL	500 feet AGL
Airtanker	1000 feet AGL	150 feet above top of vegetation

COMMUNICATIONS 8364.6.2

(No. 4 January 2003)

Unless otherwise directed, pilots will monitor the following frequencies:

- Primary Air Tactics VHF-FM (as assigned)
  Primary air-to-air communications at an incident - essential traffic only.

- Guard 1 (168.625) VHF-FM (continuous on all flights)
  Monitored continuously by all tactical aircraft.
  Used for emergencies, diverts, and initial call-up.

- Back-up Air-to-Air frequency VHF-AM (122.925)
  Required at fire incident.
  Used as a secondary air-tactics and other air-to-air communications.
  Used by media and other non-tactical aircraft for check-in with control aircraft

- FAA - ATC frequencies VHF-AM as required by FAR's and CDF policy.
  (See Section 8364.7 for Airport Operations)

- Airbase frequency VHF-AM (123.975)
  Required at the Air Attack Base.
  Communications with an Air Attack Base either on the ground or airborne.
  This frequency is NOT authorized for air-to-air communications.

NOTE: The pilot's primary responsibility is safety of flight. Pilots will manage use of multiple frequencies to prioritize the task at hand. Example: While Air Tactics is primary at an incident, FAA Tower or Unicom frequency is primary when operating in an airport traffic area. When necessary, pilots may decrease volume or de-select a frequency that becomes a distraction.

Complex Incident with an ATGS or other Control Aircraft

Note: See Section 8341.3 for operating without an ATGS or Airtanker Coordinator.
See Section 8341.5 for Initial Attack exceptions.

En route to and from an incident

- Horizontal separation: Pilots will fly approximately 1 mile to the right of the GPS centerline course.

- Vertical separation: When distance and terrain permits, pilots will follow hemispheric cruising rules above 1,000 feet AGL.
  Example: Eastbound - Odd thousand + 500 feet.
  Westbound - Even thousand + 500 feet.

12 miles inbound to an incident:

- Contact the CONTROL AIRCRAFT (Air Tactical Group Supervisor or Airtanker coordinator) on assigned frequency stating position and altitude. (Example: Tanker 100, 12 miles East at 3,500.)

- If airspeed is greater than 150 KIAS, begin reducing speed to 150 knots.

- Pilots shall ensure ALL anti-collision lights (including landing or pulse lights) are on.

- Briefing from the CONTROL AIRCRAFT should include the Control Aircraft's altitude and altimeter setting, known hazards, other aircraft types and tail numbers at scene, a Tail Number specific CLEARANCE with an assigned altitude, and the Tail Number of the aircraft you will follow.

- **Do not proceed closer than 7 nautical miles without a briefing and clearance from the controlling aircraft, or at speeds greater than 150 KIAS.**

- If clearance is not received prior to 7 miles, the inbound airtanker must remain outside of the 7 miles arc and away from the inbound course. Pilot will announce holding position and altitude on Air Tactics or 122.92.

At the incident:

Fire types and complexity vary greatly and each incident should be treated as a new problem with its own unique characteristics. Specific assignments (target identification) by CDF or other-agency fire control personnel should be treated as REQUESTS, NOT ORDERS! The final decision as to whether the assignment can be safely accomplished, or specifically how it is to be performed, rests solely with the airtanker pilot. Agency fire control personnel are required to, and are expected to, accept a pilot's decision. Safety is the first priority, followed by the second priority of accomplishing mission objectives.

Safe and orderly operations at an incident scene require the following:

- Standard and predictable entry - Enter the fire area in level flight at assigned altitude at no more than 150 knots, and at a tangent to the left hand circular orbit.

- Other aircraft - Arriving airtanker pilot shall have been given the number and type of aircraft in the area prior to entry. Pilot of arriving airtanker will remain clear of the airtanker orbit until visually locating the other airtankers.

- Drop instructions - Pilots must be certain that the instructions are for their aircraft and not for someone else. NEVER drop out of turn or without specific instructions.

- Risk assessment - Pilots will use their experience and judgment to determine if the instructions can be complied with. Pilots should advise controller promptly with a decision to perform or not perform the maneuver.

- Maximum maneuvering altitude during drop runs shall be at least 500 feet BELOW the established airtanker orbit altitude. The orbit altitude will be adjusted as necessary to accommodate this requirement.

- The following radio calls are mandatory during drop runs:

  1. Downwind 2. Base 3. Final 4. Clear

  Controller will acknowledge the calls and will not use the assigned frequency for anything except communications with the dropping airtanker during BASE, FINAL, and RELEASE phase of the drop run.

- Retardant delivery runs will be made smoothly with the aircraft in a stable configuration. Airtanker should be descending throughout the approach up to retardant release. Steep turns and abrupt maneuvers will be avoided.

- Retardant (or other suppressant) releases will be made at a high enough altitude where all forward motion of the fluid stops prior to impact with the ground. In no case will retardant be dropped lower than 150 feet above the top of vegetation.

- Exit after drop - Pilot should promptly add appropriate climb power and depart the drop area in a safe manner turning as necessary to fly toward descending terrain. The pilot will report "clear" to controller and await further instructions. Pilot will ensure that the departure path remains below the established airtanker orbit altitude.

AIRPORT OPERATIONS (ALL FIXED-WING AIRCRAFT) 8364.7

(No. 4 January 2003)

Pilots will adhere to all applicable FAA regulations when departing or arriving at an airport. Be cognizant of special departure procedures and noise abatement rules. During airport departures and arrivals, pilots shall prioritize their attention to the airport operation (not air attack operations). Ensure the proper frequency is selected and monitored at an appropriate volume. De-select or reduce the volume of other frequencies. Large and turbine powered aircraft will use a traffic pattern altitude of 1,500 feet AGL at all airports (controlled and un-controlled), and reduce speed to 150 knots prior to traffic pattern entry.

UNCONTROLLED (NON-TOWER) AIRPORTS 8364.7.1

(No. 4 January 2003)

Pilots should be keenly alert when operating at uncontrolled airports (no FAA tower). The following procedures are mandatory at non-tower airports for all Air Tac and Airtanker pilots.

- Monitor appropriate common traffic advisory frequency (CTAF) whenever taxiing on the field or when within 10 miles of the field.
- Announce taxi intentions when departing the Air Attack Base area.
- Announce departure and direction of flight prior to crossing the "hold-short" line.
- Visually check for arriving aircraft on base and final approach areas.
- Listen and look for other aircraft while departing. Remain on CTAF until safely clear of the airport traffic area.
- Announce arrival (bearing and distance from airport) on CTAF at or prior to 10 miles. Obtain airport advisory (AWOS) if available. Ensure all anti-collision lights are ON.

- The following radio calls are mandatory at uncontrolled fields:

    (1) 5 miles
    (2) 1 mile (45° or Overhead entry)
    (3) Crosswind "break" (on overhead entry)
    (4) Downwind
    (5) Base turn
    (6) Final
    (7) Go-around (if applicable)

(see next section)

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